AMENDMENT(S) TO THE SPECIFICATION

Please add the following paragraph beginning at page 1, line 3:

CROSS REFERENCE TO RELATED APPLICATION

The present application is a 35 U.S.C. §§ 371 national phase conversion of PCT/EP2003/013152, filed 22 November 2003, which claims priority of German Application No. 102 58 130.4, filed 29 November 2002 and German Application No. 103 45 349.0, filed 19 September 2003. The PCT International Application was published in the German language.

Please add the following section heading at page 1, line 4:

BACKGROUND OF THE INVENTION

Please replace the paragraph beginning at page 4, line 7, with the following rewritten paragraph:

SUMMARY OF THE INVENTION

This object is achieved by a method having the features of the invention ~~as claimed in claim 1~~. It is distinguished in that two methods known per se, which seem mutually incompatible at first sight, are combined with the aid of a specially shaped optical element, in particular a scattering body. One of them is a photometric stereo method known per se. This method is employed for diffusely reflecting surfaces, but is deficient for glossy surfaces. The other is a deflectometric method for reflecting or transmitting surfaces. The application ranges of the two methods are expanded by the optical element, so that the resulting overall method provides particularly good results for glossy surfaces.

Please replace the paragraph beginning at page 4, line 19, with the following rewritten paragraph:

This object is also achieved by a device having the features of the invention ~~as claimed in claim 12~~. It is distinguished by a scattering body. This makes it possible to expand the application ranges of

different methods of optical shape recording so that methods hitherto mutually exclusive on one body, in particular the deflectometric method and photometric stereo can advantageously be combined to form a new method, preferably for bodies with glossy surfaces.

Please delete the paragraph beginning at page 5, line 12 in its entirety.

Please add the following section heading at page 5, line 15:

BRIEF DESCRIPTION OF THE DRAWINGS

Please add the following section heading at page 5, line 25:

DESCRIPTION OF PRIOR ART AND A PREFERRED EMBODIMENT OF THE INVENTION

Please replace the paragraph beginning at page 8, line 4, with the following rewritten paragraph:

Since the light sources are a large distance away, these vectors remain approximately constant for all points of the surface O. The normal (perpendicular to the surface) vector $\vec{n}(x, y)$, however, varies according to the shape of the surface O and should be interpreted as a local normal vector.

Please replace the paragraph beginning at page 16, line 18, with the following rewritten paragraph:

A scattering body S designed as a sphere will be considered below. In particular, a spherical surface has the special property that every unit vector $\vec{r}(x, y)$ from the ~~centre~~ center in the direction of the surface (radial vector) is parallel to the normal vector $\vec{n}(x, y)$ at this point (see Figure 3). The radial vector and the normal vector of the object G are in turn related to one another via the reflection

law or refraction law (deflectometry). If the object G is small compared to the radius of the sphere, then all object points lie approximately at the ~~centre~~ center of the sphere. The normal vector on the object can be calculated even without this assumption, but a small object will be assumed here in order to allow a simple presentation. The z axis of the coordinator system is selected so that it extends parallel to the optical axis of the camera K. According to the reflection law, the following applies for the normal vector $\vec{m}(x, y)$ of the surface $\vec{m}(x, y) = const \cdot (\vec{n} + \vec{b})$ with the unit vector in the direction of observation $\vec{b}$ and the constraint that $\vec{m}$ and $\vec{n}$ are unit vectors. It is therefore possible to determine the normal vector of the object G for a multiplicity of points of the object surface O, the partial derivatives p and q from this, and from these in turn the shape of the surface $z(x,y)$ of the object G by integration.